UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/577,439 | 10/07/2006 | **Shoji Taniguchi** | 8048-1164 | 4765 |

466 7590 06/10/2009

YOUNG & THOMPSON
209 Madison Street
Suite 500
ALEXANDRIA, VA 22314

| EXAMINER | |
|---|---|
| ILUYOMADE, IFEDAYO B | |
| **ART UNIT** | **PAPER NUMBER** |
| 2627 | |
| **MAIL DATE** | **DELIVERY MODE** |
| 06/10/2009 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/577,439 | TANIGUCHI ET AL. | |
| | Examiner | Art Unit | |
| | IFEDAYO ILUYOMADE | 2627 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *07 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *12-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/27/06, 07/01/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Information Disclosure Statement*

2. The information disclosure statement (IDS) submitted on 07/01/2008 was filed after the mailing date of the application on 10/07/2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 12, 20, 21, and 22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 12, 13 of copending Application No. 11148433.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. The claims are as follows with the differences highlighted.

| 10577439 | 11148433 |
|---|---|
| With reference to claim 12: A first recording layer for recording and a second recording layer for recording, said first recording layer and said second recording layer arranged in this order as viewed from an irradiation side of the laser light, wherein said second recording layer has a predetermined area in which power calibration is performed to detect an optimum recording power of the laser light for recording, which is transmitted through said first recording layer, and said first recording layer has a facing area which faces the predetermined area, the facing area having embossed pits, and light | With reference to claim 1: A first record layer for recording first information which is at least a part of record information; and one or more second record layers disposed on said first record layer, each layer of said second layers being for recording second information which is at least another part of the record information; wherein said each layer of said second layers has a predetermined area where a power calibration is performed to detect an optimum recording power of recording laser beam transmitted through said first record layer and another layer of said second layers, said another |

| | |
|---|---|
| transmittance of the facing area being same as that of a recorded area on said first recording layer.<br>With reference to claim 22: A first recording layer to record therein first information which is at least one portion of record information; and one or a plurality of second recording layers, which are disposed on said first recording layer, to record therein second information which is at least another portion of the record information, wherein each of said second recording layers has a predetermined area in which power calibration is performed to detect an optimum recording power of laser light for recording, which is transmitted through said first recording layer and other layers of said second recording layers, said first recording layer, the other layers of said second recording layers, and said each of said second recording layers arranged in this order as | layer of said second layers positioned closer to said first record layer than said each layer of said second layers, in opposite areas of said another layer of said second layers and said first record layer, said opposite areas being opposite to said predetermined area of said each layer of said second layers, a first absolute amount of at least one of width and depth of a groove is increased and thereby light transmittance in said opposite areas is approached to (i) light transmittance under an assumption that the first absolute amount is not increased and said another layer of said second layers and said first record layer are in a recorded state, in comparison to (ii) light transmittance under an assumption that the first absolute amount is not increased and said another layer of said second layers and said first record layer are in a non-recorded state. |

| | |
|---|---|
| viewed from an irradiation side of the laser light, and in a facing area which faces the predetermined area in the other layers of said second recording layers and said first recording layer, by forming embossed pits, light transmittance of the facing area is made closer to (I) light transmittance under an assumption that (i-1) the embossed pits are not formed and that (i-2) the other layers and said first recording layer are already recorded, as compared to (ii) light transmittance under an assumption that (ii-1) the embossed pits are not formed and that (ii-2) the other layers and said first recording layer are unrecorded. | |

Although the conflicting claims are not identical, they are not patentably distinct from each other because the element of the copending application contains encompassing structure adequate to perform the functions recited in this application. Claim 1 of application 11148433 is broader than claims 12 and 22 of this application in every respect.

| | |
|---|---|
| 10577439 | 11148433 |

| | |
|---|---|
| With reference to claim 20: A first recording layer for recording and a second recording layer for recording, said first recording layer and said second recording layer arranged in this order as viewed from an irradiation side of the laser light, wherein said second recording layer has a predetermined area in which power calibration is performed to detect an optimum recording power of the laser light for recording, which is transmitted through said first recording layer, and said first recording layer has a facing area which faces the predetermined area, the facing area having embossed pits, and light transmittance of the facing area being same as that of a recorded area on said first recording layer, said information recording apparatus comprising: a writing device for writing test-writing information into said second recording layer on the basis of the laser light for recording; and a | With reference to claim 12: (i) a first record layer for recording first information which is at least a part of the record information; and (ii) one or more second record layers disposed on said first record layer, each layer of said second layers being for recording second information which is at least another part of the record information; wherein (iii) said each layer of said second layers has a predetermined area where a power calibration is performed to detect an optimum recording power of recording laser beam transmitted through said first record layer and another layer of said second layers, said another layer of said second layers positioned closer to said first record layer than said each layer of said second layers, (iv) in opposite areas of said another layer of said second layers and said first record layer, said opposite areas being opposite to said predetermined area of said each |

| | |
|---|---|
| test-writing control device for controlling said writing device to test-write the test-writing information for the power calibration of the laser light for recording with respect to said second recording layer, in the predetermined area through the facing area. | layer of said second layers, a first absolute amount of at least one of width and depth of a groove is increased and thereby light transmittance in said opposite areas is approached to (iv-1) light transmittance under an assumption that the first absolute amount is not increased and said another layer of said second layers and said first record layer are in a recorded state, in comparison to (iv-2) light transmittance under an assumption that the first absolute amount is not increased and said another layer of said second layers and said first record layer are in a non-recorded state, said apparatus comprising: a writing device for writing test writing information which is at least another part of the record information, into said first record layer, by irradiating said first record layer with the recording laser beam in such a manner that the recording laser beam is focused onto said first record layer, and for writing |

| | |
|---|---|
| | the test writing information into said each layer of said second record layers by irradiating said each layer of said second layers with the recording laser beam in such a manner that the recording laser beam is focused onto said each layer of said second record layers; and a test writing control device for controlling said writing device so as to (I) test-write the test writing information, via said opposite areas, for a power calibration of the recording laser beam in the predetermined area on said each layer of said second record layers, and (II) test-write the test writing information for the power calibration of the recording laser beam in first predetermined areas included respectively in areas differing from said opposite areas on said another layer of said second layers and said first record layer. |

Although the conflicting claims are not identical, they are not patentably distinct from each other because the element of the copending application contains encompassing structure adequate to perform the functions recited in this application. Claim 12 of application 11148433 is broader than claim 20 of this application in every respect.

| 10577439 | 11148433 |
|---|---|
| With reference to claim 21: A first recording layer for recording and a second recording layer for recording, said first recording layer and said second recording layer arranged in this order as viewed from an irradiation side of the laser light, wherein said second recording layer has a predetermined area in which power calibration is performed to detect an optimum recording power of the laser light for recording, which is transmitted through said first recording layer, and said first recording layer has a facing area which faces the predetermined area, the facing area having embossed pits, and light transmittance of the facing area being same as that of a recorded area on said | With reference to claim 13: (i) a first record layer for recording first information which is at least a part of the record information; and (ii) one or more second record layers disposed on said first record layer, each layer of said second layers being for recording second information which is at least another part of the record information; wherein (iii) said each layer of said second layers has a predetermined area where a power calibration is performed to detect an optimum recording power of recording laser beam transmitted through said first record layer and another layer of said second layers, said another layer of said second layers positioned closer to said first record layer than said |

| | |
|---|---|
| first recording layer, said information recording method comprising: a test-writing control process of controlling said writing device to test-write the test-writing information for the power calibration of the laser light for recording with respect to said second recording layer, in the predetermined area through the facing area. | each layer of said second layers, (iv) in opposite areas of said another layer of said second layers and said first record layer, said opposite areas being opposite to said predetermined area of said each layer of said second layers, a first absolute amount of at least one of width and depth of a groove is increased and thereby light transmittance in said opposite areas is approached to (iv-1) light transmittance under an assumption that the first absolute amount is not increased and said another layer of said second layers and said first record layer are in a recorded state, in comparison to (iv-2) light transmittance under an assumption that the first absolute amount is not increased and said another layer of said second layers and said first record layer are in a non-recorded state, said method comprising: a test writing control process for controlling said writing device so as to (I) test-write the test writing |

| | |
|---|---|
| | information, via said opposite areas, for a power calibration of the recording laser beam in the predetermined area on said each layer of said second record layers, and (II) test-write the test writing information for the power calibration of the recording laser beam in first predetermined areas included respectively in areas differing from said opposite areas on said another layer of said second layers and said first record layer. |

Although the conflicting claims are not identical, they are not patentably distinct from each other because the element of the copending application contains encompassing structure adequate to perform the functions recited in this application. Claim 13 of application 11148433 is broader than claim 21 of this application in every respect.

5. Claims 13, 16, 17, 18, and 19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 7, 8, 9, 10, and 11 of copending Application No. 11148433.

6. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. The claims are as follows with the differences highlighted.

| 10577439 | 11148433 |
|---|---|
| With reference to claim 13: wherein the predetermined area is smaller than the facing area. | With reference to claim 7: wherein said predetermined area is a smaller area than each of said opposite areas. |

Although the conflicting claims are not identical, they are not patentably distinct from each other because the element of the copending application contains encompassing structure adequate to perform the functions recited in this application. Claim 7 of application 11148433 is broader than claim 13 of this application in every respect.

| 10577439 | 11148433 |
|---|---|
| With reference to claim 16: wherein at least one of said first recording layer and said second recording layer further has a management information recording area to record therein management information, and identification information for identifying whether or not the embossed pits are formed in the facing area, is recorded in the management information recording area, as the management information. | With reference to claim 8: wherein at least one of said first record layer and said second record layers further has a management information record area for recording therein management information, wherein in said management information record area, there is recorded, as the management information, identification information indicating whether at least one of the first absolute amount and the second absolute amount is increased or decreased. |

Although the conflicting claims are not identical, they are not patentably distinct from each other because the element of the copending application contains encompassing structure adequate to perform the functions recited in this application. Claim 8 of application 11148433 is broader than claim 16 of this application in every respect.

| 10577439 | 11148433 |
|---|---|
| With reference to claim 17: wherein said first recording layer has a first predetermined area in which the power calibration is performed for said first recording layer, in an area different from the facing area. | With reference to claim 9: wherein said another layer of said second layers and said first record layer respectively has a first predetermined area where the power calibration is performed on said another layer of said second layers and said first record layer. |

Although the conflicting claims are not identical, they are not patentably distinct from each other because the element of the copending application contains encompassing structure adequate to perform the functions recited in this application. Claim 9 of application 11148433 is broader than claim 17 of this application in every respect.

| 10577439 | 11148433 |
|---|---|
| With reference to claim 18: wherein said second recording layer has a second predetermined area in which the power | With reference to claim 10: wherein said each layer of said second record layers has a second predetermined area where |

| | |
|---|---|
| calibration is performed for said second recording layer, in an area which is different from the predetermined area and which does not face the facing area. | the power calibration is performed on said each layer of said second record layers, in an area which is different from said predetermined area and not opposite to said opposite areas. |

Although the conflicting claims are not identical, they are not patentably distinct from each other because the element of the copending application contains encompassing structure adequate to perform the functions recited in this application. Claim 10 of application 11148433 is broader than claim 18 of this application in every respect.

| 10577439 | 11148433 |
|---|---|
| With reference to claim 19: wherein at least one of said first recording layer and said second recording layer further has a management area to record therein a value of the detected optimum recording power. | With reference to claim 11: wherein at least one of said first record layer and said second record layer has a management area for recording therein the detected optimum record power value. |

7. Claims 13 and 14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11148433 in view of Hirotsune et al (US Patent No. 7102987).

This is a provisional obviousness-type double patenting rejection.

8. Kato (11148433), lacks in his claim:

- With respect to claim 14: "Wherein encryption information for encrypting or decrypting record information is recorded by forming the embossed pits, in the facing area."
- With respect to claim 15: "Wherein control information for controlling at least one of a recording operation and a reproduction operation of the record information is recorded by forming the embossed pits, in the facing area."

9. Hirotsune discloses:

- "A map or list of information indicative of the existing positions or addresses of all the restricted blocks are prerecorded as encoded data or encrypted data on a specific area or desirably on a read-only area where information is recorded by embossed pits or the like on the information recording medium" and "a means having a processing function for reading encoded data or encrypted data stored in a specific area on the recording medium, and decoding or decrypting the read data to obtain layout information of the restricted blocks, and performing at least one of write and read control or logical format, such that all the restricted blocks are not substantially user areas based on the restricted block layout information obtained by using the information recording medium."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the functionality as taught by Hirotsune to that of Kato for the purpose of encoding data in order to ensure security of information on medium.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IFEDAYO ILUYOMADE whose telephone number is (571)270-7118. The examiner can normally be reached on Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph H. Feild/
Supervisory Patent Examiner, Art Unit 2627

IBI
06/04/2009